MS158283.02

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

- 1-24. (Canceled).
- 25. (New): A collaborative filtering system, comprising:

a personality type generator that analyzes known attributes relating to a user and calculates probabilities that the user has a personality type substantially similar to personality types of a plurality of disparate users, wherein the personality types of the plurality of disparate users are based at least in part upon attributes related to such users; and

an attribute value predictor that predicts unknown attributes relating to the user based at least in part upon the calculated probabilities.

- (New): The system of claim 25, further comprising a recommendation 26. facility that provides recommendations to the user based at least in part upon the predicted attributes.
- (New): The system of claim 26, the recommendation facility weighs a cost 27. of disturbing the user against a benefit of providing the user with the recommendation prior to providing the user with the recommendations.
- (New): The system of claim 25, further comprising a query facility that 28. requests an attribute from the user.

- 29. (New): The system of claim 28, the query facility weighs a cost of disturbing the user against a benefit of obtaining the attribute prior to requesting the attribute from the user.
- 30. (New): The system of claim 28, the query facility employs expected value of information in connection with requesting the attribute from the user.
- 31. (New): The system of claim 30, attributes are selectively requested from the user based upon one or more of a discriminatory value of information relating to the user and a consideration of a likelihood that the user is familiar with items being asked about given current uncertainty about the user.
- 32. (New): The method of claim 31, attributes are selectively requested from the user based upon a discriminatory value of the information, including an analysis of a consideration of a likelihood of different answers to a query given current uncertainty about the user.
- 33. (New): The system of claim 25, the personality types of the plurality of disparate users generated using at least known attributes relating to each of the plurality of disparate users.
- 34. (New): The system of claim 33, the known attributes relating to the plurality of disparate users is accessible from a data table.
- 35. (New): The system of claim 34, further comprising a pruning facility, the pruning facility employed to reduce a number of known attributes to consider when generating the personality types of the plurality of users.
- 36. (New): The system of claim 25, the known attributes relating to the user associated with a calculated variability.

10/686,198

MS158283.02

- 37. (New): The system of claim 36, the variability is Gaussian.
- 38. (New): The system of claim 25, the personality types are at least partially defined by vectors, the vectors include attributes relating to the plurality of disparate users.
- 39. (New): The system of claim 38, the probabilities that the user has a personality type substantially similar to personality types of the plurality of disparate users are calculated at least partially by a frequency that the plurality of disparate users rate items according to the vectors.
- 40. (New): The system of claim 39, a number of occurrences that the disparate users rate items according to the vectors are explicitly counted.
- 41. (New): The system of claim 25, the personality type generator determines at least one probability that the user has a personality type substantially similar to any other personality type by employing the expression $\Pr(R_a^{rue} = R_i \mid R_{a1} = x_1, ... R_{am} = x_m) \propto \Pr(R_{a1} = x_1 \mid R_{a1}^{rue} = R_{i1}).\Pr(R_{am} = x_m \mid R_{am}^{rue} = R_{im}) \bullet \Pr(R_a^{rue} = R_i)$ where R_a^{true} is a vector of the user's internal preferences for one or more titles, R_i is a vector of a disparate user's ratings, R_a is a vector of the user's actual ratings, and x is a particular rating within R_i .
- 42. (New): The system of claim 41, wherein $\Pr(R_n^{true} = R_i)$ is assumed to be $\frac{1}{n}$, where n is a number of the disparate users.

10/686,198

MS158283.02

- 43. (New): The system of claim 41, the attribute value predictor at least partially predicts unknown attributes relating to the user by employing the expression $\Pr(R_{aj} = x_j \mid R_{a1} = x_1, ..., R_{am} = x_m) = \sum_{i=1}^n \Pr(R_{aj} = x_j \mid R_a^{true} = R_i) \bullet \Pr(R_a^{true} = R_i \mid R_{a1} = x_1, ..., R_{am} = x_m)$ where j is an attribute that has not been rated by the user.
- 44. (New): The system of claim 25, the personality generator employs a Bayesian Network to calculate the probabilities that the user has a personality type substantially similar to personality types of the plurality of disparate users.
 - 45. (New): A browser employing the system of claim 25.
 - (New): The system of claim 25 residing on a server. 46.
 - (New): The system of claim 25 accessed over a network. 47.
- 48. (New): A method for providing recommendations to a user, comprising: collecting attributes from a user, the attributes relate to items accessible via a browser;

calculating a probability that the user has a personality type substantially similar to a disparate user based at least in part upon the collected attributes and attributes related to the disparate user,

generating attributes for the user based at least in part upon the calculated probability; and

recommending an item to a user based at least in part upon the generated attributes.

(New): The method of claim 48, further comprising selectively requesting 49. attributes from the user based upon a value of obtaining the information.

- 50. (New): The method of claim 49, further comprising selectively requesting attributes from the user based upon a use of expected value of information.
- 51. (New): The method of claim 50, further comprising selectively requesting attributes from the user based upon one or more of a discriminatory value of information relating to the user and a consideration of a likelihood that the user is familiar with items being asked about given current uncertainty about the user.
- 52. (New): The method of claim 51, further comprising selectively requesting attributes from the user based upon a discriminatory value of the information, including an analysis of a consideration of a likelihood of different answers to a query given current uncertainty about the user.
- 53. (New): The method of claim 48, one or more of the attributes being ratings relating to items.
- 54. (New): The method of claim 53, the items being one or more of video content, textual content, audio content, image content, multi-media content, a service, a consumer good, a business good, clothing, and a financial instrument.
- 55. (New): The method of claim 48, further comprising calculating a plurality of probabilities that the user has a personality type substantially similar to a plurality of disparate users based at least in part upon the collected attributes and attributes related to the disparate users.
- 56. (New): The method of claim 48, further comprising selectively reducing a number of attributes to consider when calculating the probability that the user has a personality type substantially similar to the disparate user.

10/686,198

MS158283.02

- 57. (New): The method of claim 48, further comprising employing a Bayesian network in connection with recommending the item to the user.
 - 58. (New): A system that facilitates Internet searching, comprising: means for collecting attributes relating to an entity;

means for comparing the collected attributes with attributes related to a plurality of disparate entities;

means for calculating probabilities that the entity will act in a manner substantially similar to the disparate entities based at least in part upon the comparison; means for generating new attributes relating to the entity based at least in part upon the calculated probabilities.

59. (New): The system of claim 58, further comprising means for providing the entity with a recommendation based at least in part upon the new attributes.